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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Lieping Chen
Serial No. : 09/915,789
Filed : July 26, 2001
Title : B7-H3 AND B7-H4, NOVEL IMMUNOREGULATORY MOLECULES

Art Unit : 1644
Examiner : Jessica H. Roark

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF INVENTOR UNDER 37 C.F.R. § 1.131

I, the inventor, declare that:

1. I am the inventor of claims 1-3, 7-9, 32-33, and 53-58 of the above-captioned patent application, as well as the inventor of the subject matter related to these claims described therein.

2. Prior to September, 1999, I worked in the United States to complete the conception of the invention, as claimed in the application, and to reduce the invention to practice, as evidenced by the following:

A copy of a computer printout generated in my laboratory prior to September, 1999, is attached as Exhibit B. The computer printout shows a nucleic acid sequence derived from the nucleotide sequences of a series of overlapping cDNA clones. The nucleic acid sequence includes the nucleotide sequence encoding the full-length human B7-H4 polypeptide. The date of generation of the computer printout has been blocked out on all three pages of the computer printout but was before September, 1999.

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit

Signature

Typed or Printed Name of Person Signing Certificate

Applicant : Lieping Chen
Serial No. : 09/915,789
Filed : July 26, 2001
Page : 2 of 2

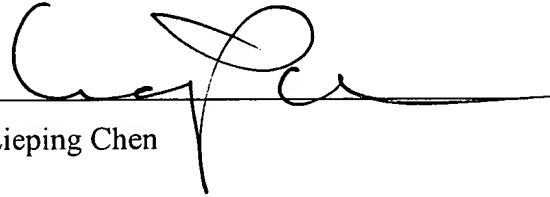
Attorney's Docket No.: 07039-219001

3. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: _____

3/15/04

Lieping Chen



B7.6DNA Translated Sequence

BamHI
HindIII
NotI
PvuI
SmaI

Page 1

Sequence Range: 1 to 1369

10 20 30 40 50 60 70
CAGCGGCAGCTCCACTCAGCCAGTACCCAGATACGCTGGGAACCTTCCCCAGCTATGGCTTCCCTGGGGC
GTCGCCGTCGAGGTGAGTCGGTCATGGGTCTATGGGACCCTTGGGAAGGGGTGGGTACCGAAGGGACCCCG
Q R Q L H S A S T Q I R W E P S P A (M) A S L G>
TRANSLATION OF B7.6DNA [A]
80 90 100 110 120 130 140
AGATCCTCTTCTGGAGCATAATTAGCATCATCATTATTCTGGCTGGAGCAATTGCACTCATCATTTGGCTT
TCTAGGAGAAGACCTCGTATTAATCGTAGTAGTAATAAGACCGACCTCGTTAACGTGAGTAGTAACCGAA
Q I L F W S I I S I I I I L A G A I A L I I G F>
TRANSLATION OF B7.6DNA [A]
150 160 170 180 190 200 210
TGGTATTTTCAGGGGACACTCCATCACAGTCACTACTGTGCGCTCAGCTGGGAACATTGGGGAGGATGGA
ACCATAAAGTCCCTCTGTGAGGTAGTGTCACTGATGACAGCGGAGTGGACCTTGTAACCCCTCCTACCT
G I S G R H S I T V T T V A S A G N I G E D G>
TRANSLATION OF B7.6DNA [A]
220 230 240 250 260 270 280
ATCCTGAGCTGCACCTTTTGAACCTGACATCAAACCTTTCTGATATCGTGATACAATGGCTGAAGGAAGGTG
TAGGAATCGACGTGAAAACCTTGGACTGTAGTTTGAAGACTATAGCACTATGTTACCGACTTCTCTCCAC
I L S C T F E P D I K L S D I V I Q W L K E G>
TRANSLATION OF B7.6DNA [A]
290 300 310 320 330 340 350
TTTTAGGCTTGGTCCATGAGTTCAAAGAAGGCAAAGATGAGCTGTGCGAGCAGGATGAAATGTTTCAGAGG
AAAATCCGAACCAGGTACTCAAGTTTCTTCCGTTTCTACTCGACAGCCTCGTCCTACTTTACAAGTCTCC
V L G L V H E F K E G K D E L S E Q D E M F R G>
TRANSLATION OF B7.6DNA [A]
360 370 380 390 400 410 420
CCGGACAGCAGTGTTCCTGATCAAGTGATAGTTGGCAATGCCTCTTTGCGGCTGAAAAACGTGCAACTC
GGCCTGTGCTCACAAACGACTAGTTCACTATCAACCGTTACGGAGAAACGCCGACTTTTTCACGTTGAG
R T A V F A D Q V I V G N A S L R L K N V Q L>
TRANSLATION OF B7.6DNA [A]
430 440 450 460 470 480 490
ACAGATGCTGGCACTTACAAATGTTATATCATCACTTCTAAAGGCAAGGGGAATGCTAACCTTGAGTATA
TGTCTACGACCGTGATGTTTACAATATAGTAGTGAAGATTTCGGTTCCTTACGATTGGAACATCATAT
T D A G T Y K C Y I I T S K G K G N A N L E Y>
TRANSLATION OF B7.6DNA [A]
500 510 520 530 540 550 560
AAACTGGAGCCTTCAGCATGCCGGAAGTGAATGTGGACTATAATGCCAGCTCAGAGACCTTGGCGGTGTGA
TTTGACCTCGGAAGTCGTACGGCCTTCACTTACACCTGATATTACGGTTCGAGTCTCTGGAACGCCACACT
K T G A F S M P E V N V D Y N A S S E T L R C E>
TRANSLATION OF B7.6DNA [A]
570 580 590 600 610 620 630
GGCTCCCCGATGGTTCCCCCAGCCCAAGTGGTCTGGGCATCCCAAGTTGACCAGGGAGCCAACTTCTCG
CCGAGGGGCTACCAAGGGGTGGGTGTCAACAGACCCGTAGGGTTCAACTGGTCCCTCGGTTGAAGAGC
A P R W F P Q P T V V W A S Q V D Q G A N F S>
TRANSLATION OF B7.6DNA [A]
640 650 660 670 680 690 700

K2 PK
S2000
A/G W/ATC G
+

422

GAAGTCTCCAATACCAGCTTTGAGTGAAGTCTGAGAATGTGACCATGAGGTTGTGTCTGTGCTCTACA
 CTTTCAGAGGTTATGGTCGAAACTCGACTTGAGACTCTTACACTGGTACCTCCAACACAGACACGAGATGT
 E V S N T S F E L N S E N V T M K V V S V L Y>

TRANSLATION OF B7.6DNA [A]

710 720 730 740 750 760 770
 ATGTTACGATCAACAACACATACTCCTGTATGATTGAAAATGACATTGCCAAAGCAACAGGGGATATCAA
 TACAATGCTAGTTGTTGTGTATGAGGACATACTAACTTTTACTGTACCGGTTTCGTTGTCCCCTATAGTT
 N V T I N N T Y S C M I E N D I A K A T G D I K>

TRANSLATION OF B7.6DNA [A]

780 790 800 810 820 830 840
 AGTGACAGAATCGGAGATCAAAAGCGGAGTCACTACAGCTGCTAAACTCAAGGCTTCTCTGTGTGTC
 TCACGTCTTAGCCTCTAGTTTTCGCCTCAGTGGATGTGAGGATTTGACTTTCCGAAGAGACACACAG
 V T E S E I K R R S H L Q L L N S K A S L C V>

TRANSLATION OF B7.6DNA [A]

850 860 870 880 890 900 910
 TCTTCTTTCTTTGCCATCAGCTGGGCACTTCTGCCTCTCAGCCCTTACCTGATGCTAAATAATGTGCCT
 AGAAGAAAGAAACGGTAGTCGACCCGTGAAGACGGAGAGTCGGGAATGGACTACGATTTTATTACACGGA
 S S F F A I S W A L L P L S P Y L M L K * C A>

TRANSLATION OF B7.6DNA [A]

920 930 940 950 960 970 980
 TGGCCACAAAAAGCATGCAAAGTCATTGTTACAACAGGGATCTACAGAACTATTTCAACACCAGATATG
 ACCGGTGTTTTTTCGTACGTTTCAGTAACAATGTTGTCCCTAGATGTCTTGATAAAGTGGTGGTCTATAC
 L A T K K H A K S L L Q Q G S T E L F H H Q I *>

TRANSLATION OF B7.6DNA [A]

84D

990 1000 1010 1020 1030 1040 1050
 ACCTAGTTTTATATTTCTGGGAGGAAATGAATTCATATCTAGAAGTCTGGAGTGAGCAAACAAGAGCAAG
 TGGATCAAAATATAAAGACCCCTCCTTTACTTAAGTATAGATCTTCAGACCTCACTCGTTTGTCTCGTTC
 P S F I F L G G N E P I S R S L E * A N K S K>

TRANSLATION OF B7.6DNA [A]

86E

1060 1070 1080 1090 1100 1110 1120
 AAACAAAAAGAAGCCAAAAGCAGAAGGCTCCAATATGAACAAGATAAATCTATCTTCAAAGACATATTAG
 TTTGTTTTCTTCGGTTTTTCGTCTCCGAGGTTATACTTGTTCATTATAGATAGAAGTTTCTGTATAATC
 K Q K E A K S R R L Q Y E Q D K S I F K D I L>

TRANSLATION OF B7.6DNA [A]

1130 1140 1150 1160 1170 1180 1190
 AAGTTGGGAAAATAATTCATGTGAAGTGTGTTAAGAGTGATAAGTAAATGCACGTGGAGAC
 TTCAACCCCTTTTATTAAGTACACTTGATCTGTTACACAATTCTCACTATTCTTTACGTGCACCTCTG
 E V G K I I H V N * T S V L R V I S K M H V E T>

TRANSLATION OF B7.6DNA [A]

1200 1210 1220 1230 1240 1250 1260
 AAGTGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGTACCTGGGGAGTGAGAGGACAGGATAGTGCA
 TTCACGTAGGGGTCTAGAGTCCCTGGAGGGGGACGGACAGTGGACCCCTCACTCTCCTGTCTATCACGT
 S A S P D L R D L P L P V T W G V R G Q D S A>

TRANSLATION OF B7.6DNA [A]

1270 1280 1290 1300 1310 1320 1330
 TGTCTCTTTGTCTCTGAATTTTTAGTTATATGTCTGTAATGTTGCTCTGAGGAAGCCCCCTGGAAAGTCTA
 ACAAGAAACAGAGACTTAAAAATCAATATACCGACATTACAACGAGACTCCTTCGGGGACCTTTCAGAT
 C S L S L N P * L Y V L * C C S E E A P G K S>

_____TRANSLATION OF B7.6DNA [A]_____>

1340 1350 1360
TCCCAACATATCCACATCTTATATTCCACAAATTAAGCT
AGGGTGTATAGGTGTAGAATATAAGGTGTTTAATTGA
I P T Y P H L I F H K L S X>
_____TRANSLATION OF B7.6DNA [A]_____>